

CLAIMS

We Claim:

1           1. A digital communications translator, comprising:  
2           a first telephone line interface, for receiving communications  
3 signals from a host system over a telephone line;  
4           a second telephone line interface, for transmitting translated  
5 communications signals to a receiver system over a telephone line;  
6 and  
7           a translator, coupled to the first telephone line interface  
8 and the second telephone line interface, for receiving  
9 communications signals from the host system and translating the  
10 communications signals into translated communication signals and  
11 outputting the translated communications signals to the receiver  
12 system.

1           2. The digital communications translator of claim 1, wherein  
2 the communications signals comprise Dual Tone Multiple Frequency  
3 (DTMF) signals.

1           3. The digital communications translator of claim 2, wherein  
2 the DTMF signals comprise a telephone number programmed into the

3 host, and the translated communications signals comprises a DTMF  
4 telephone number programmed into the translator.

1 4. The digital communications translator of claim 1, wherein  
2 the communications signals comprise digital data signals.

1 5. The digital communications translator of claim 4, wherein  
2 the digital data signals comprise alarm system codes and data  
3 generated by the host and the translated communications signals  
4 comprise corresponding alarm system codes and data programmed into  
5 the translator.

1 6. The digital communications translator of claim 4, wherein  
2 the digital data signals comprise an alarm system account number  
3 generated by the host and the translated communications signals  
4 comprise a corresponding translated alarm system account number  
5 programmed into the translator.

1 7. The digital communications translator of claim 1, wherein  
2 the translator comprises:

3 a first memory for storing as a look-up table, translated  
4 communications signals, the first memory being addressed using the  
5 communications signals received from the host system and outputting  
6 a corresponding translated communication signal stored at a memory  
7 address.

1 8. The digital communications translator of claim 7, wherein  
2 the translator further comprises:

3 a second memory, coupled to the first memory, for storing a  
4 library of translation data for a plurality of host types.

1 9. The digital communications translator of claim 7, wherein  
2 the translator detects host type and downloads a corresponding  
3 library of data from the second memory to the first memory for data  
4 translation for the detected host type.

1 10. The digital communications translator of claim 1,  
2 wherein the first telephone line interface comprises a first  
3 modem, for receiving communications data signals from the host,

4 wherein the second telephone line interface comprises a second  
5 modem, for transmitting translated communications to the receiver,  
6 and

7 wherein the translator comprises a microprocessor and at least  
8 one memory, wherein the microprocessor receives a communication  
9 signal from the first modem, looks up a translated communication  
10 signal in the memory using a memory address generated from the  
11 communication signal, and outputs to the second modem a translated  
12 communication signal stored at the memory address.

11. A method of translating digital communications over a  
telephone line, comprising the steps of:

receiving, over a first telephone line interface,  
communications signals from a host system over a telephone line,

receiving, in a translator coupled to the first telephone line  
6 interface and a second telephone line interface, communications  
7 signals from the host system,

8 translating, in the translator, the communications signals  
9 into translated communication signals,

10 outputting the translated communications signals to the second  
11 telephone line interface, and

12 transmitting, over the second telephone line interface,  
13 translated communications signals to a receiver system over a  
14 telephone line.

1 12. The method of translating digital communications over a  
2 telephone line of claim 11, wherein the communications signals  
3 comprise Dual Tone Multiple Frequency (DTMF) signals.

1 13. The method of translating digital communications over a  
2 telephone line of claim 12, wherein the DTMF signals comprise a  
3 telephone number programmed into the host, and the translated  
4 communications signals comprises the steps of a DTMF telephone  
5 number programmed into the translator.

1 14. The method of translating digital communications over a  
2 telephone line of claim 11, wherein the communications signals  
3 comprise digital data signals.

1 15. The method of translating digital communications over a  
2 telephone line of claim 14, wherein the digital data signals

3      comprise alarm system codes and data generated by the host and the  
4      translated communications signals comprise corresponding alarm  
5      system codes and data programmed into the translator.

1            16. The method of translating digital communications over a  
2      telephone line of claim 14, wherein the digital data signals  
3      comprise an alarm system account number generated by the host and  
4      the translated communications signals comprise a corresponding  
5      translated alarm system account number programmed into the  
6      translator.

1            17. The method of translating digital communications over a  
2      telephone line of claim 11, wherein said step of translating  
3      further comprises the steps of:

4            storing, in a first memory as a look-up table, translated  
5      communications signals

6            addressing the first memory using the communications signals  
7      received from the host system, and

8            outputting a corresponding translated communication signal  
9      stored at a memory address.

1           18. The method of translating digital communications over a  
2 telephone line of claim 17, wherein said step of translating  
3 further comprises the step of:

4           storing in a second memory, coupled to the first memory, a  
5 library of translation data for a plurality of host types.

1           19. The method of translating digital communications over a  
2 telephone line of claim 17, wherein said step of translating  
3 further comprises the steps of:

4           detecting, in the translator, host type, and  
5           downloading a corresponding library of data from the second  
6 memory to the first memory for data translation for the detected  
7 host type.

1           20. The method of translating digital communications over a  
2 telephone line of claim 11,

3           wherein said step of receiving over the first telephone line  
4 interface comprises the step of receiving communications data  
5 signals from a host over a first modem,

6           wherein said step of outputting over the second telephone line  
7 interface comprises the step of transmitting translated  
8 communications to the receiver over a second modem, and

9            wherein said step of translating comprises the steps of:  
10            receiving in a microprocessor coupled to at least one memory,  
11            a communication signal from the first modem,  
12            looking up, using the microprocessor, a translated  
13            communication signal in the at least one memory using a memory  
14            address generated from the communication signal, and  
15            outputting to the second modem from the microprocessor, a  
16            translated communication signal stored at the memory address.

10055937-012302